AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Method of selecting at least one transmission channel from a plurality of transmission channels, in a time division multiple access protocol, comprising the steps of ~~characterized primarily in that it consists in~~:

receiving for each channel a periodic indication of the transmission quality of that channel;

storing these indications for each channel during a time window;

selecting at least one channel that has the best current transmission quality indication position, the position being relative to the transmission quality indications stored for that channel during the time window.

2. (original) Method of selection according to Claim 1, characterized in that the step of selecting at least one channel is carried out from a plurality of channels over which data are to be transmitted and from these channels at least one channel that has the best or amongst the best current transmission quality indication position(s) relative to the transmission quality

indications stored for that channel during the time window.

3. (previously presented) Method according to Claim 1, characterized in that it consists, during a step (S0), in determining the number of channels N, the size of the time window T and the initial values of the transmission qualities of each channel during the time window and in that these parameters may be updated by interrupting the method at moments chosen by a reinitialization finite state machine, particularly when the number of channels N changes due to the activity of the users.

4. (original) Method according to Claim 3, characterized in that it consists in executing, during each unit of time, the said series of instructions consisting in:

executing a loop (B1) to determine for each channel (2_i) the position (Pi) of the current transmission quality indication relative to those stored for that channel during the time window;

selecting, during a step (S5), from the channels for which data are to be transmitted at least one channel (2_j) that has the best or amongst the best value(s) (Pj);

during a step (S6), giving transmission authorization at least to the channel (2_j).

5. (original) Method according to Claim 4, characterized in that the loop (B1) consists, for each channel (2_i, where i is from 1 to N), in:

acquiring, during a step (S1), a transmission quality indication of the channel (2_i), that is Ci(t);

initializing, during a step (S2), a value of position Pi at 1;

executing a second loop (B2) in order to determine a value indicative of the position (Pi);

executing a third loop (B3) in order to update the transmission quality indications of the channel (2_i) during the time window.

6. (original) Method according to Claim 5, characterized in that the loop (B2) consists, for each loop index (k, where k is from 1 to T), in:

evaluating the result of a test (T1) defined by the relation: Ci(t-k) > Ci(t);

incrementing the indication of position (Pi) by one unit during a step (S3) if the result of the test (T1) is positive;

otherwise, evaluating the result of a test (T2) defined by the relation (Ci(t-k) == Ci(t)) AND (RAND < 1) where RAND is a function returning a random variable, in particular uniformly distributed over the interval [0,2];

executing the step (S3) of incrementing the indication of position (Pi) if the result of the test (T2) is positive.

7. (original) Method according to Claim 5, characterized in that the loop (B3) consists, for each loop index (k, where k is from T to 1), in:

assigning the previously stored value Ci(t-k+1) to the variable Ci(t-k) during a step (S4).

8. (original) Method according to Claim 7, characterized in that a convention such as a random choice is applied to the step (S4) when several active channels have a minimum indication of position (Pi).

9. (previously presented) Method according to Claim 7, characterized in that if several channels are authorized to transmit simultaneously, the step (S4) consists in selecting from the channels for which data are to be transmitted those that have the best position (Pi) and in that a step (S5) consists in giving transmission authorization to those channels.

10. (original) Method according to Claim 6, characterized in that the second test (T2) executes a predetermined convention to compute the indication of position (Pi) when the current transmission quality indication of the channel, that is Ci(t), is equal to one or more values of the time window.

11. (previously presented) Method according to Claim 5, characterized in that the loops (B1, B2, B3) are, partially or wholly, processed in parallel and not sequentially.

12. (previously presented) Communication system using the method of claim 1, characterized in that it comprises:

a method for receiving, for at least one channel, a periodic indication of transmission quality of that channel;

a memory for storing the transmission quality indications of each channel during a time window;

a computing circuit to determine, for each channel for which a periodic indication of transmission quality has been received, the position of the current transmission quality indication of that channel relative to those stored for that channel during the time window;

a circuit for selecting at least one transmission channel that has the best current transmission quality indication position relative to those stored for that channel during the time window.

13. (original) Communication system according to Claim 12, characterized in that the circuit for selecting at least one transmission channel comprises a means of selecting channels over which data are to be transmitted

and that have the best or one amongst the best current transmission quality indication position(s) relative to the positions stored for that channel or those channels during the time window.

14. (previously presented) Communication system according to Claim 12, characterized in that it comprises at least one circuit (A1) for acquiring the transmission quality signal of the channel (2_i), that is Ci(t) on the date t.

15. (previously presented) Communication system according to Claim 12, characterized in that it comprises at least one memory (A2) consisting of T blocks, each block (A2.k) containing the value of transmission quality of the channel (2_i) on the date (t-k), that is Ci(t-k), where k is from 1 to T.

16. (previously presented) Communication system according to Claim 12, characterized in that it comprises at least one set (A3) of at most T comparison circuits, each circuit (A3.k) comparing the current transmission quality indication contained in at least the circuit (A1) with the transmission quality indication on the date t-k contained in the memory block (A2.k), where k is from 1 to T.

17. (previously presented) Communication system according to Claim 12, characterized in that it comprises

at least one adder (A4), to the input of which is connected the output of each comparison circuit (A3.k), where k is from 1 to T, and an independent input always giving the value 1.

18. (new) A method of selecting at least one transmission channel from a plurality of transmission channels, in a time division multiple access protocol, comprising the steps of:

receiving for each channel periodic indications of the transmission quality of that channel;

storing the indications for each channel during a time window;

during the time window and for each channel, numerically ordering a current transmission quality indication relative to the stored indications to provide a numerically ordered position of the current indication relative to the stored indications; and

selecting from among the plural channels the channel that has the highest numerically ordered position.